

Spectral Gamma-Ray Borehole Log Data Report

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Borehole

50-10-08

Log Event A

Borehole Information

Farm : \underline{T} Tank : $\underline{T-110}$ Site Number : $\underline{299-W10-151}$

N-Coord: 43,327 W-Coord: 75,684 TOC Elevation: 673.00

Water Level, ft: 89.50 Date Drilled: 3/31/1975

Casing Record

Type: Steel-welded Thickness: 0.237 ID, in.: 4

Top Depth, ft. : $\underline{0}$ Bottom Depth, ft. : $\underline{93}$

Type: Steel-welded Thickness: 0.280 ID, in.: 6

Top Depth, ft.: 0 Bottom Depth, ft.: 93

Equipment Information

Logging System : 2 Detector Type : HPGe Detector Efficiency: 35.0 %

Calibration Date : 03/1995 Calibration Reference : GJPO-HAN-1

Logging Information

Log Run Number : 1 Log Run Date : 4/14/95 Logging Engineer: Gary Lekvold



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Analysis Information

Analyst: Kos/Henwood

Data Processing Reference : <u>Data Analysis Manual Ver. 1</u> Analysis Date : 7/7/95

Analysis Notes:

The pre- and post-survey field calibrations indicated consistent peak activities, although energy calibrations differed due to gain drift in the instrumentation. Spectra were recalibrated for energy versus channel number, where appropriate. The reported concentrations at each depth represent the spectra collected from 0.5 ft above and below the data point.

The total casing thickness was determined to be 0.4375 in., on the basis of information gathered from drilling logs from other T Tank Farm boreholes. The casing correction used to reduce log data was 0.650 in., which may result in reported concentrations slightly higher than actual. Water corrections were made at 89.5 ft during data reduction.

Log Plot Notes:

Separate log plots show the man-made and the naturally occurring radionuclides. The natural radionuclides can be used for lithology interpretations. The headings of the plots identify the specific gamma rays used to calculate the concentrations. Uncertainty bars on the plots show the statistical uncertainties for the measurements as 95-percent confidence intervals. Open circles on the plots give the MDL. The MDL of a radionuclide represents the lowest concentration at which positive identification of a gamma-ray peak is statistically defensible.

A combination plot includes the man-made and natural radionuclides, the total gamma derived from the spectral data, and the Tank Farms gross gamma log. The gross gamma plot displays the latest available digital data. No attempt has been made to adjust the depths of the gross gamma logs to coincide with the SGLS data.